pt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 93152.

Received at London Office 10 OCT 1928

of writing Report 19 When handed in at Local Office 19 Port of London (Ipswich)

in Survey held at Ipswich Date, First Survey March 24th 1928 Last Survey Sep. 15th 1928
Book. Number of Visits 8

Single / Twin / Triple / Quadruple — on the Screw vessel "Viceroy of India" (Auxiliary for Electric Lighting) Tons Gross ___ Net ___

ilt at Glasgow. By whom built A. Stephens + Sons Ltd Yard No. 519 When built

gines made at Ipswich By whom made Petters (Ipswich) Ltd. Engine No 1364 When made 1928

nkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

ake Horse Power 75 Owners Port belonging to

m. Horse Power as per Rule 31.43 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted

ade for which vessel is intended

, ENGINES, &c. — Type of Engines Semi-Diesel 2 or 4 stroke cycle 2 Single or double acting Single

ximum pressure in cylinders 450 lbs Diameter of cylinders 11" Length of stroke 12 No. of cylinders 2 No. of cranks 2.

n of bearings, adjacent to the Crank, measured from inner edge to inner edge 12¾" Is there a bearing between each crank Yes.

olutions per minute 370 Flywheel dia. 5'0" Weight 4,280 lbs. Means of ignition Electric Kind of fuel used Crude oil.

nk Shaft, dia. of journals as per Rule 5.14" as fitted 5.375 ✓ Crank pin dia. 5⅜" Crank Webs Mid. length breadth 8¾ ✓ Mid. length thickness 3" ✓ shrunk Thickness parallel to axis / Thickness around eyehole } Solid.

wheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thrust Shaft, diameter at collars as per Rule ✓ as fitted ✓

be Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule ✓ as fitted ✓ Is the {tube / screw} shaft fitted with a continuous liner {✓ / ✓}

onze Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per rule ✓ as fitted ✓ Is the after end of the liner made watertight in the

eller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓

he liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ✓

two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after

of the tube shaft ✓ Length of Bearing in Stern Bush next to and supporting propeller ✓

opeller, dia. ✓ Pitch ✓ No. of blades ✓ Material ✓ whether Moveable ✓ Total Developed Surface ✓ sq. feet

thod of reversing Engines ✓ Is a governor or other arrangement fitted to prevent racing of the engine when declutched ✓ Means of lubrication

Thickness of cylinder liners ⅞" at top ½" bott. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with

-conducting material ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓

oling Water Pumps, No. One. Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

ge Pumps worked from the Main Engines, No. ✓ Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓

mps connected to the Main Bilge Line { No. and Size ✓ / How driven ✓ }

last Pumps, No. and size ✓ Lubricating Oil Pumps, including Spare Pump, No. and size ✓

two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size:—In Machinery Spaces ✓

Holds, &c. ✓

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ✓

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓

all Sea Connections fitted direct on the skin of the ship ✓ Are they fitted with Valves or Cocks ✓

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates ✓ Are the Overboard Discharges above or below the deep water line ✓

they each fitted with a Discharge Valve always accessible on the plating of the vessel ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓

t pipes pass through the bunkers ✓ How are they protected ✓

t pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times ✓

e arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one

artment to another ✓ Is the Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓

n Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

liary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

ll Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

venging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

liary Engines crank shafts, diameter as per Rule ✓ as fitted ✓

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.

the internal surfaces of the receivers be examined ✓ What means are provided for cleaning their inner surfaces None.

here a drain arrangement fitted at the lowest part of each receiver Yes

h Pressure Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓

less, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength Working pressure by Rules

rting Air Receivers, No. 2. Total cubic capacity 5.5 feet Internal diameter 11½" thickness ½"

less, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28/32 Tons Working pressure by Rules 500 lbs

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IS A DONKEY BOILER FITTED? ... If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting ✓ (If not, state date of approval) Receivers ✓ Separate Tanks ✓

Donkey Boilers ✓ General Pumping Arrangements ✓ Oil Fuel Burning Arrangements ✓

SPARE GEAR

As per attached list.

The foregoing is a correct description,

✓ Manufacturer.

Dates of Survey while building { During progress of work in shops - - } { During erection on board vessel - - - } Total No. of visits

Dates of Examination of principal parts—Cylinders 24-3-28. Covers 3-4-28 Pistons 3-4-28 Rods ✓ Connecting rods 3-4-28.

Crank shaft 9-6-28. Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ ✓ Tube shaft ✓

Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine sealings ✓ Engines holding down bolts ✓

Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓

Crank shaft, Material Steel Identification Mark LLOYDS No 273. R W F. Flywheel shaft, Material ✓ Identification Mark ✓

Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material ✓ Identification Marks ✓

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material ✓ Identification Mark ✓

Is the flash point of the oil to be used over 150° F. Yes.

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been constructed under Special Survey, & the Society's Rules, the material + workmanship are good. On completion of erection the Engine was coupled to an electric generator + run at full power for 6 hours + 10% overload for one hour, Engine & generator worked satisfactory throughout the trial, & has now been despatched to Glasgow to be fitted in the vessel.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)

Certificate (if required) to be sent to

The amount of Entry Fee ... £ ✓ : :

Special ... ... £ 2 - 2 - 0 :

Donkey Boiler Fee ... £ ✓ : :

Travelling Expenses (if any) £ ✓ : :

When applied for, 15 OCT 1928

When received, Lon Ltr 4/12/29

A. E. Farminer.
Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 9 APR 1929

Committee's Minute GLASGOW 12 MAR 1929

Assigned See Glasgow Report No 48950

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